



A Rock Pipe Inlet Sediment Trap Type B (PIST-B) is a horseshoe shaped device with a built-in sediment storage area around the perimeter of the structure. The PIST-B shall be used at pipe inlets no larger than 18 inches in diameter where flow is being received from several directions. The PIST-B utilizes class A stone lined with sediment control stone to protect drainage pipe structures by trapping sediment before it enters. If required, a sediment storage pit may be designed by the same procedures as a silt basin.

AREAS OF USE:

- At pipe inlets no larger than 18 inches in diameter where flow is being received from several directions.
- At locations where a PIST-A would be unsafe due to adjacent traffic.
- In areas where it can be cleaned and maintained on a regular basis.

DESIGN CRITERIA:

- The drainage area should not exceed 1 acre.
- The sediment trap should provide a storage volume of 3600 cubic feet per acre of disturbed area, and a surface area of 435 square feet per cfs of Q_{10} peak inflow.
- The stone dam should be a minimum of 18 inches high.
- The top of the PIST-B shall be a minimum of 1 foot below the top of the fill over the pipe.
- Some of the required volume may be provided by up or downstream controls.

CONSTRUCTION SPECIFICATIONS:

- The PIST-B should have a minimum height of 18 inches.
- Sides of the trap should be constructed with a 2:1 slope.
- Structural stone should have a minimum width of 7 ft. - 6 inches at its base and 18 inches at its top.
- The layer of sediment control stone should be a minimum of 12 inches thick.
- The top of the trap should be a minimum of 12 inches below the roadway shoulder or diversion point.
- Stone should be tied into slopes to prevent water from bypassing the device.

MATERIAL SPECIFICATIONS:

- Structural stone shall be class A stone that meets the requirements of Section 1042 of the Standard Specifications for Stone for Erosion Control, Class A.
- Sediment control stone shall be #5 or #57 stone, which meets the requirements of Section 1005 of the Standard Specifications for these stone sizes.

**PAYMENT:**

- Installation of measure:
Stone for Erosion Control, Class A
Sediment Control Stone
Ton
Ton
- Silt cleanout of device:
Silt Excavation
Cubic Yard

MAINTENANCE:

- Inspect the PIST-B after each significant rainfall.
- Remove and dispose of all silt when accumulations reach one-half of the basin area formed by the device.
- Replace sediment control stone when water no longer drains through the device between rainfall events.
- Cleanout when clogged by straw, limbs, or other debris.

TYPICAL PROBLEMS:

- Silt accumulations are not removed when needed causing silt to enter pipe.
- Structure is not rebuilt when damaged by storms, equipment, etc..
- Stone is not cleaned or replaced when clogged-up.
- Stone is not tied into slopes.